

CLAIMS:

Sub A1

1. An electrode array for use in a cochlear implant, said electrode array having electrodes selectively positioned along said electrode array in order to better target selected regions of the cochlea.

Sub A2

2. An electrode array according to claim 1 wherein the spacing between adjacent electrodes is less at an apical end of the electrode array than at a basal end.

Sub A3

3. An electrode array according to claim 1 or 2, wherein one region of the electrode array has electrodes which are spaced from each other differently to electrodes from at least one other region of said electrode array.

Sub C2

4. An electrode array according to claim 1 or 2 wherein the spacing between consecutive electrodes is uniformly graduated.

Sub A3

5. An electrode array according to claim 3 or 4 wherein said spacing between adjacent electrodes is such as to correspond closely with the spacing of auditory receptors on the inner wall of the scala tympani.
6. A method of constructing a cochlear electrode array for implantation into a cochlea of the patient as part of a cochlear implant system, the method including:
 - determining the regions of the cochlea where stimulation is desired; and
 - positioning the electrodes along the electrode array in a location or locations that will enable stimulation of the desired site of the cochlea when the electrode array has been inserted.

7. A method according to claim 6 wherein the step of positioning the electrodes includes positioning the electrodes such that the spacing between adjacent electrodes is less at the apical end of the electrode array than at the basilar end.

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8. A method according to claim 6 wherein the step of positioning the electrodes including positioning the electrodes such that the spacing between adjacent electrodes differs in differing regions along the electrode array.

Sub
C7

9. A method according to claim 6 or 7 wherein the step of positioning the electrodes including positioning the electrodes such that the spacing between consecutive electrodes is uniformly graduated.